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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/681,674	05/18/2001	Yoshifumi Natsuyama	JP920000096US1	3666	
877 7	7590 06/10/2003				
IBM CORPORATION, T.J. WATSON RESEARCH CENTER			EXAMINER		
P.O. BOX 218 YORKTOWN	HEIGHTS, NY 10598		JP920000096US1 36 EXAMINER RUDE, TIMOTHY L	MOTHY L	
			ART UNIT	PAPER NUMBER	
			2871		
			DATE MAILED: 06/10/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

	4		Au /
	Application No.	Applicant(s)	- op
•	09/681,674	NATSUYAMA, YOS	HIFUMI
Office Action Summary	Examiner	Art Unit	
•	Timothy L Rude	2871	
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet w	ith the correspondence addr	'ess
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b). Status	136(a). In no event, however, may a rely within the statutory minimum of thin will apply and will expire SIX (6) MONe, cause the application to become AE	reply be timely filed ty (30) days will be considered timely. ITHS from the mailing date of this com BANDONED (35 U.S.C. § 133).	munication.
1) Responsive to communication(s) filed on 21	<u>May 2003</u> .		
2a) This action is FINAL . 2b)⊠ Tr	nis action is non-final.		
3) Since this application is in condition for allow closed in accordance with the practice under Disposition of Claims			merits is
4) ☐ Claim(s) <u>1-7 and 9-15</u> is/are pending in the ap	pplication		
4a) Of the above claim(s) 1-3 and 9-15 is/are v	•	on.	
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>4-7</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/o	or election requirement.		
Application Papers			
9)☐ The specification is objected to by the Examine	er.		
10)☐ The drawing(s) filed on is/are: a)☐ acce	pted or b)□ objected to by t	he Examiner.	
Applicant may not request that any objection to th		, · ·	
11)☐ The proposed drawing correction filed on		isapproved by the Examiner.	
If approved, corrected drawings are required in re	•		
12) The oath or declaration is objected to by the Ex	caminer.		
Priority under 35 U.S.C. §§ 119 and 120			
13) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
a)□ All b)□ Some * c)□ None of:			
1. Certified copies of the priority document	ts have been received.		
2. Certified copies of the priority document	ts have been received in A	pplication No	
 3. Copies of the certified copies of the prio application from the International Bu * See the attached detailed Office action for a list 	reau (PCT Rule 17.2(a)).		age
14)☐ Acknowledgment is made of a claim for domesti	ic priority under 35 U.S.C.	§ 119(e) (to a provisional a	pplication).
a) ☐ The translation of the foreign language pro 15)☐ Acknowledgment is made of a claim for domest	• •		
Attachment(s)			
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of I	Summary (PTO-413) Paper No(s). Informal Patent Application (PTO-	

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DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Election/Restrictions

2. Applicant's election of Group 2 (claims 4-8) in Paper No. 6 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Objections

3. Claim 7 is objected to because of the following informalities: The recitation "conductive anchor pins" does not explicitly appear in claims 4 or 5. Appropriate correction is required.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

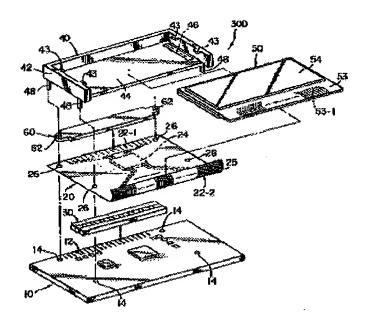
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu USPAT 6,191,838 B1 in view of Glaser et al (Glaser) USPAT 4,550,039.

As to claim 4, Muramatsu discloses in his third embodiment, Figures 11 and 12, (col. 10 line 66 through col. 13, line 6) a liquid crystal display device, 50, comprising: a pair of glass substrates facing each other, each having electrodes for applying voltage to a liquid crystal material on a facing surface (typical); a circuit board, 10, for supplying said voltage; and a liquid crystal driver tape carrier package, 20, (col. 11, lines 7-9 and col. 7, lines 1-3) for connecting said electrodes of said glass substrates to said circuit board and mounting a liquid crystal driver chip (col. 11, lines 7-9 and col. 7, lines 4-13), wherein said liquid crystal driver tape carrier package and said circuit board anchor holes, 26 and 14, and anchor pins, 48, are inserted into said anchor holes, whereby said liquid crystal tape carrier package is fixed to said circuit board (col. 11, lines 45-48).

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Figure 11



Muramatsu does not explicitly disclose a display wherein said liquid crystal driver tape carrier package is soldered to said circuit board via said pins.

Glaser teaches the use of soldering conductive pins (col. 3, lines 44-49 and col. 3, line 67 through col. 4, line 11) to make electrical connections with more efficient routing of lead wires (col. 1, line 67 through col. 2, line 5), provide a more rigid mount, and reduce the cost of manufacturing.

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Glaser is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to use soldering of conductive pins to make electrical connections with more efficient routing of lead wires, provide a more rigid mount, and reduce the cost of manufacturing.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Muramatsu with the soldering of conductive pins of Glaser to make electrical connections with more efficient routing of lead wires, provide a more rigid mount, and reduce the cost of manufacturing.

As to claim 5, Muramatsu discloses the liquid crystal display device further comprising a light guide, 44 (Applicant's frame), for allowing said anchor pins to stand on a surface holding said pair of glass substrates, wherein said liquid crystal driver tape carrier package and said circuit board are fixed to said frame.

As to claim 6, Muramatsu discloses the liquid crystal display device wherein a pair of said anchor holes, 26, is located with said liquid crystal driver chip, 24, between (diagonally per Figure 11).

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5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu in view of Glaser, as applied to claims 4-5 above, and further in view of Yamagishi et al (Yamagishi) USPAT 5,771,158.

As to claim 7, Muramatsu in view of Glaser discloses the liquid crystal display device according to claim 5.

Muramatsu in view of Glaser does not explicitly disclose a grounding conductor formed on said frame, and said conductive anchor pins are conductively connected to said grounding conductor.

Yamagishi teaches the use of a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances (col. 4, lines 44-65 and col. 3, lines 30-40).

Yamagishi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Muramatsu in view of Glaser with the ground plane of Yamagishi to reduce radiation emissions and avoid harmful interference with other electric appliances.

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Response to Arguments

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6. Applicant's arguments, see Paper No 12, filed 21 May 2003, with respect to pre-

mature Finality have been fully considered and are persuasive. The Finality has been

withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Timothy L Rude whose telephone number is (703) 305-

0418. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 872-9318

for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4900.

TLR

05 June 2003

Timothy L Rude

Examiner

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ROVERT H. KIM

SUPERVISORY FATTER AMINER

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